

AMENDMENTS TO THE CLAIMS:

Claim 64 is canceled without prejudice or disclaimer. Claims 62, 65, 72, 73, and 75-80 are amended. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-61 (Canceled).

Claim 62 (Currently amended). An isolated enzyme exhibiting beta-1,4-endoglucanase activity (EC 3.2.1.4), which (a) has a temperature optimum of 65°C measured at a pH of 7.5 and (b)(i) has an amino acid sequence that is at least ~~85%~~ 90% identical to amino acids 1-456 or 1-617 of SEQ ID NO: 2 wherein identity is determined by GAP provided in the GCG program package using a GAP creation penalty of 3.0 and GAP extension penalty of 0.1 or (ii) is encoded by a DNA sequence that hybridizes to ~~one or more of~~ nucleotides 76-1455 of SEQ ID NO: 1 under high stringency conditions, wherein the high stringency conditions are defined as hybridization in 5xSSC at 45°C and washing in 2xSSC at 70°C.

Claim 63 (Previously presented). The enzyme of claim 62, which belongs to family 9 of glycosyl hydrolases.

Claim 64 (Canceled).

Claim 65 (Currently amended). The enzyme of claim ~~63~~ 64, which has an amino acid sequence that is at least 90% identical to amino acids 1-456 or 1-617 of SEQ ID NO: 2.

Claim 66 (Previously presented). The enzyme of claim 65, which has an amino acid sequence that is at least 95% identical to amino acids 1-456 or 1-617 of SEQ ID NO: 2.

Claim 67 (Previously presented). The enzyme of claim 66, which has an amino acid sequence that is at least 98% identical to amino acids 1-456 or 1-617 of SEQ ID NO: 2.

Claim 68 (Previously presented). The enzyme of claim 62, which comprises an amino acid sequence of amino acids 1-456 of SEQ ID NO: 2.

Claim 69 (Previously presented). The enzyme of claim 62, which comprises an amino acid sequence of amino acids 1-617 of SEQ ID NO: 2.

Claim 70 (Previously presented). The enzyme of claim 62, which consists of an amino acid sequence of amino acids 1-456 of SEQ ID NO: 2.

Claim 71 (Previously presented). The enzyme of claim 62, which consists of an amino acid sequence of amino acids 1-617 of SEQ ID NO: 2.

Claim 72 (Currently amended). The enzyme of claim 62, ~~±~~ which is encoded by a DNA sequence that hybridizes to ~~one or more of~~ nucleotides 76-1455 of SEQ ID NO: 1 under high stringency conditions, wherein the high stringency conditions are defined as hybridization in 5xSSC at 45°C and washing in 2xSSC at 70°C.

Claim 73 (Currently amended). The enzyme of claim 72, which is encoded by a DNA sequence that hybridizes to ~~one or more of~~ nucleotides 76-1455 of SEQ ID NO: 1 under high stringency conditions, wherein the high stringency conditions are defined as hybridization in 5xSSC at 45°C and washing in 2xSSC at 75°C.

Claim 74 (Previously presented). The enzyme of claim 62, which is a *Bacillus licheniformis* enzyme.

Claim 75 (Currently amended). The enzyme of claim 74 54, which is a *Bacillus licheniformis*, ATCC 14580 enzyme.

Claim 76 (Currently amended). The enzyme of claim 62 43, which is active at a pH in the range of 4-11.

Claim 77 (Currently amended). The enzyme of claim 76 56, which is active at a pH in the range of 5.5-10.5.

Claim 78 (Currently amended). An enzyme composition comprising the enzyme of claim 62 43.

Claim 79 (Currently amended). The composition of claim 78 ~~58~~, which further comprises one or more enzymes selected from the group consisting of alpha-amylases, cellobiohydrolases, cellulases (endoglucanases), cutinases, beta-glucanases, glucoamylases, hemicellulases, laccases, ligninases, lipases, oxidases, pectate lyases, pectin acetyl esterases, pectinases, pectin lyases, pectin methylesterases, peroxidases, phenoloxidases, polygalacturonases, proteases, pullulanases, reductases, rhamnogalacturonases, xylanases, xyloglucanases, other mannanases, transglutaminases; and mixtures thereof.

Claim 80 (Currently amended). A method for degradation of cellulose-containing biomass, comprising treating the biomass with an effective amount of the enzyme of claim 62 ~~43~~.

Claim 81 (Previously presented). An enzyme exhibiting beta-1,4-endoglucanase activity (EC 3.2.1.4) which has an amino acid sequence comprising amino acids 1-456 or 1-617 of SEQ ID NO: 2.